Main Streets Districts Lease Rates Resist Decline

Coming in the midst of an economic downtown, our annual survey of Main Streets Districts retail and office lease rates finds landlords reluctant to offer discounts from the previous year. In some districts, landlords are choosing to leave space vacant rather than lowering the rent. While some may question this strategy, it is important to remember that leases typically run as long as five years, additionally providing tenants with options to renew. As signs of recovery spring up, landlords are reluctant to commit to longterm leases that will fall below market value within a few years. In other cases, landlords purchased buildings during a boom period, paying premium prices. The terms of their mortgages often dictate the lease rates necessary to achieve break even.

Boston Main Streets Districts - Retail Lease Trends

District	Retail Leases*			
	February, 2000	February, 2001	February, 2002	
Allston Village	\$18	\$18 to \$24	\$24 to \$40	
Bowdoin/Geneva	\$7 to \$12	\$12	\$11 to \$14	
Brighton	\$8 to \$17	\$20 to \$25	\$28 to \$38	
Centre/South Main St.		\$18 to \$35	\$20 to \$38	
Chinatown	N.A.	\$18 to \$25	\$35 to \$45	
Dudley Square	\$15 to \$25	\$16.75 to \$25	\$18 to \$28	
East Boston	\$15 to \$25	\$20 to \$25	\$21 to \$25	
Egleston Square			\$12 to \$25	
Fields Corner			\$14 to \$18	
Four Corners	\$5 to \$15	\$10 to \$14	\$12 to \$25	
Grove Hall	\$9 to \$16	\$20 to \$24	\$15 to \$25	
Hyde Park	N.A.	\$18	\$16 to \$24	
Hyde/Jackson Sq	\$15 to \$18	\$18 to \$20	\$20 to \$36	
Mission Hill	\$15 to \$25	\$19 to \$23	\$17 to \$25	
Roslindale Village	\$12 to \$15	\$15 to \$18	\$14 to \$20	
South Boston	N.A.	\$18 to \$37	\$22 to \$38	
St. Mark's	\$12 to \$17	\$15 to \$20	\$13 to \$20	
Upham's Corner	\$8 to \$15	\$17.50	\$8 to \$19	
Washington Gateway	\$16 to \$27	\$25 to \$33	\$28 to \$31	
West Roxbury	N.A.	\$17 to \$27	\$14 to \$28	

^{*} Retail rates are *triple-net*, meaning the merchant is responsible for all operating, tax, & maintenance expenses. Further, retailers typically pay for all build-out costs. Source: Main Streets Program Managers

Boston Main Streets Districts – Office Lease Trends District Retail Leases*

	February, 2000	February, 2001	February, 2002	
Allston Village	N.A.	\$19	\$19	
Bowdoin/Geneva	N.A.	N.A.	\$11 to \$14	
Brighton	\$16	\$15 to \$20	\$15 to \$25	
Centre/South Main St.	N.A.	\$12 to \$25	\$15 to \$25	
Chinatown	N.A.	N.A.	\$20	
Dudley Square	N.A.	\$25 to \$32	\$15 to \$35	
East Boston	\$9 to \$13	\$10 to \$15	\$12 to \$15	
Egleston Square	N.A.	N.A.	\$9 to \$25	
Fields Corner	N.A.	N.A.	\$12 to \$14	
Four Corners	N.A.	N.A.	\$10.50 to \$16	
Grove Hall	\$7 to \$12	\$22	\$22	
Hyde Park	N.A.	N.A.	\$14	
Hyde/Jackson Sq	N.A.	N.A.	\$14 to \$16	
Mission Hill	N.A.	N.A.	\$20	
Roslindale Village	N.A.	N.A.	\$7 to \$12	
South Boston	N.A.	\$15 to \$18	\$17 to \$25	
St. Mark's	N.A.	\$12 to \$20	\$13 to \$20	
Upham's Corner	N.A.	\$8.80 to \$9.25	\$6 to \$12	
Washington Gateway	N.A.	\$18 to \$27	\$21 to \$29	
West Roxbury	N.A.		\$12 to \$24	

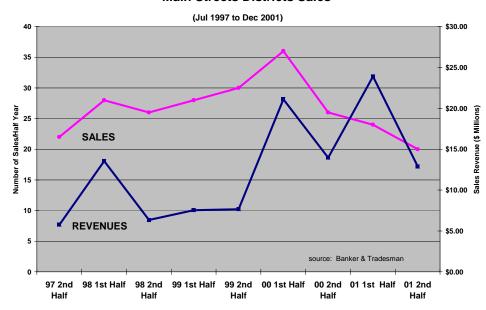
^{*} Office lease rates are typically *gross*, meaning that landlords include in the asking price both build-out and utility expenses.

Source: Main Streets Program Managers

Send Us Your Data

The R&D Unit is interested in your rental data. Help us stay current. Our goal is to include all Boston Main Streets and commercial districts. We'd like to narrow the ranges presented here so businesses have the most accurate rent information. Call Keith Kuzmin at 635-0340 or send a fax: 635-0262 or email: kkuzmin.dnd@ci.boston.ma.us

Main Streets Districts Sales



Main Streets Commercial Building Sales Change Course

Up to 2001, the chart that follows illustrates that the number of sales transactions and the total value of transactions moved in parallel. As the number of sales rose, their total value rose, and vice versa. However, this pattern changes in year 2001. The number of sales steadily declines from its peak in the first half of year 2000. In the first half of 2001, the total value of these sales

establishes an all-time high at \$23.9 million. The top five sales measured by purchase price

total \$15.5 million.

The chart above indicates that sales values have increased, as fewer transactions have a higher overall value. With a relatively small sample, where total transactions per half year range from 22 to 36 over the past five years, analysis can become subjective. With that said, there are a variety of valid explanations for the rise in purchases of expensive properties. One reason is that business people have significant confidence in a highly diversified Boston economy. The question is "when" not "if" we rebound from a downturn. A second factor is the oft cited rebirth of so many of Boston's communities. Investment in both commercial and residential properties, along with thriving commer-

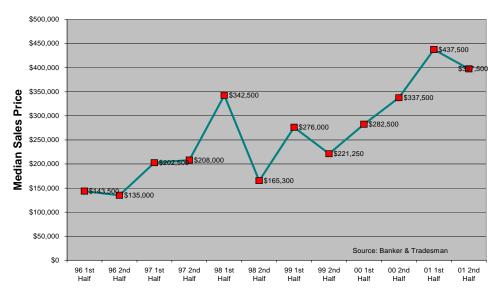
cial clusters, increasingly draw new capital into the neighborhoods. Average sales values could also be higher because the recession has pushed speculators to the sidelines. Developers with sound financing may be the only entities that can afford to participate in this market. They take advantage of stagnant pricing and low interest rates, but only for the best properties. These investors would rather effect property rehabilitation and navigate the permitting process during a downturn, positioning their properties for top leasing dollars when the property returns to the market in a time of economic recovery.

Main Streets Median Prices at All-Time High

Median prices in the Main Streets Districts reach all time highs in year 2001, with a \$437,500 median in the

first half of the year and \$397,500 in the second half. Citywide commercial building median prices peaked in 2000, led by megadeals in the Central Boston District, revealing that neighborhood activity lags behind downtown real estate performance. Strong median prices in the Main Streets districts reflect the value investors find there, value measured in terms of stability, spending power, and community involvement.

Median Sales Prices - Main Streets Properties



2nd Half 2001 Issue 5

Department of Neighborhood Development - Policy Development & Research Division - City of Boston - Thomas M. Menino, Mayor

Great Locations, Great People

Many quality locations, for office or retail businesses, are found in Boston's Main Streets Districts. The following table reports upon current vacancies, while pending vacancies are often known only by professionals active in the commercial district. Main Street

directors are some of the best contacts; they can be reached via the information provided below. Get to know these folks to find out other locations that may be available for leasing in the near future.

Leasing Main Streets Commercial Space

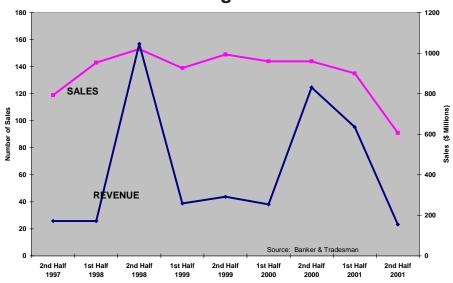
Main	Retail	Office	M. S.	Telephone	Email
Streets	Vacancy	Vacancy	District		
District	(sq. feet)	(sq. feet)	Manager		
Allston Village	20k	5k	Jennifer Rose	617.254.7564	avmainst@allstonvillage.com www.allstonvillage.com
Brighton	10k now 20k pending	9k pending	Rosie Hanlon	617.779.9200	rosie@brightonmainstreets.org www.brightonmainstreets.org
Bowdoin / Geneva			Joyce Stanley	617.635.0402	Jstanley.dnd@ci.boston.ma.us
Centre / South – J.P.	No vacancy.	No vacancy.	Bree Horwitz	617.522.0300	centre.south@verizon.net
Chinatown	No vacancy.	No vacancy	Steve Gilman	617.635.0076	Sgilman.dnd@ci.boston.ma.us
Codman Square			Emily Haber	617.635.0293	Ehaber.dnd@ci.boston.ma.us
Dudley Square	Vacancy	Vacancy	Joyce Stanley	617.541.4644	
East Boston	No vacancy	No vacancy	Maria Nigro	617.561.1044	ebmainstreets@aol.com
Egleston Square	No vacancy	No vacancy	Natacha Dunker	617.983.2100	eglestonsqmainstreet@juno.com
Fields Corner	Vacancy		Donette Owens	617.825.0110	eglestonsqmainstreet@juno.com
Four Corners	20.8K	3K	Shelly Goehring	617.287.1651	Mainstreet4c@juno.com
Grove Hall	New pending	New pending	Lorraine Grubb-Smith	617.445.1236	lgrubbssmith@aol.com
Hyde /Jackson Sq.			Karina Ivette	617.522.3694	karivette@onebox.com
Hyde Park	23K	1K	Karen O'Connell	617.361.6964	koconnell@hydeparkmainstreets.com
Mission Hill			Maggie Cohn	617.427.7399	Maggie@missionhillmainstreets.org
Roslindale Village	12k	1 k	Tom Litke	617.327.4065	tomlitke@roslindale.net
SouthBoston	No vacancy	No vacancy	Linda Doran	617.268.9600	southbostonsbms@aol.com
St. Mark'sArea	10 k pending		Dan Larner	617.825.3846	smams@netzero.net
Upham's Corner			Colin Riley	617.265.0363	criley@uphamscorner.org
Washington Gateway			Sheila Grove	617.542.1234	wgmainst@quik.com
West Roxbury	35k	5k	Bridget Boyle	617.325.6400	bbaboston@aol.com

Citywide Commercial Sales Continue to Fall

Total transactions fell off more steeply in the last half of 2001 than in any time over the past five years. Total building sales of 91 is off 32.6% from the first half of the year and 36.8% from the second half of 2000. The total value of these sales falls even more steeply. Second half 2001 sales of \$154.8 million is off \$480 million (76%) from the first half of the year and \$676 million (81%) from the second half of 2000.

Note: First half 2001 sales data shown above has been adjusted from the previous issue (#4) because some transactions occurring at the end of the period had not yet been reported. Most significantly, One Federal Street is now included in the data. This building sold on June 29, 2001 for \$367 million.

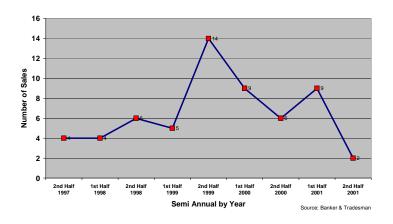
Commercial Building Sales and Revenues



Commercial Land Sales Plummet

Relatively speaking, Boston is a small city. Scarcity of land is one of its entry barriers. Nevertheless, the sale of only two commercial parcels during the half year is extremely low. In contrast (not depicted here), the City continues to actively market and return to active use residential vacant land..

Vacant Commerical Land Sales (Jul 1997 to Dec 2001)



Median Prices Trend Downwards

While median prices continue to trend lower than their peak in the second half of 2000, they remain higher than any half year period before this peak. The median price for commercial building sales is \$400,000 in the second half of 2001, down from \$425,000 in the first half of the year.

Median Sales Price - Commercial Sales

(Jul 1997 to Dec 2001)



2nd Half 2001 Issue 5

Department of Neighborhood Development - Policy Development & Research Division - City of Boston - Thomas M. Menino, Mayor

Neighborhood Sales Trends

Our "Neighborhood Roundup" provides commercial building sales results for the neighborhoods outside of the major business districts. The data below provides details for the entire neighborhoods (not just Main Streets Districts) including Allston/Brighton, Charlestown, Dorchester, East Boston, Hyde Park, Jamaica Plain, Mattapan, Roslindale, Roxbury, South Boston, and West Roxbury.

Overall, 69 sales took place in these neighborhoods, 18 less than in the first half of the year and 50 less than the second half a year ago. However, 2nd half 2001 sales value increased when compared to the first half of the year (\$91 million to \$84 million). Nevertheless, what a difference a year makes! In all of year 2001, sales in these neighborhoods total \$175 million, off 41% from 2000 sales of \$296.4 million.

Neighborhood Rou Allston/Brighton Median Price Highest Total Revenue Total Sales	ndup 00 1st Half 00 2nd Half \$1,064,500 \$831,383 \$3,800,000 \$1,600,000 \$12,615,750 \$11,887,574 9 14	01 1st Half \$950,000 \$9,380,000 \$30,261,614 14	01 2nd Half \$905,000 \$4,400,000 \$7,575,000	Mattapan Median Price Highest Total Revenue Total Sales	00 1st Half \$234,500 \$400,000 \$1,069,000 4	00 2nd Half \$427,500 \$1,532,901 \$3,241,901 6	01 1st Half \$180,000 \$279,500 \$631,500	01 2nd Half \$1,000,000 \$1,504,000 2
Charlestown Median Price Highest Total Revenue Total Sales	00 1st Half	01 1st Half \$342,500 \$564,000 \$1,439,500 4	01 2nd Half \$750,000 \$1,002,000 2	Roslindale Median Price Highest Total Revenue Total Sales	00 1st Half \$252,500 \$375,000 \$960,000	00 2nd Half \$313,800 \$380,000 \$868,800 3	01 1st Half \$425,000 \$550,000 \$1,275,000 3	01 2nd Half \$257,500 \$400,000 \$1,125,000 4
Dorchester Median Price Highest Total Revenue Total Sales	00 1st Half 00 2nd Half 236,383 \$600,000 825,000 \$76,945,328 8,341,383 \$110,559,600 29 19	01 1st Half \$185,000 \$2,300,000 \$4,027,000 10	01 2nd Half \$410,000 \$2,290,000 \$9,502,000 12	Roxbury Median Price Highest Total Revenue Total Sales	00 1st Half \$303,500 \$1,100,000 \$4,164,500	00 2nd Half \$262,500 \$1,800,000 \$6,411,000	01 1st Half \$202,000 \$2,300,000 \$6,899,920 16	01 2nd Half \$342,000 \$38,150,000 \$41,407,050 10
East Boston Median Price Highest Total Revenue Total Sales	00 1st Half 00 2nd Half \$315,000 \$175,000 \$525,000 \$1,525,000 \$3,128,000 \$5,655,555 10 19	01 1st Half \$291,500 \$13,750,000 \$15,603,000	01 2nd Half \$289,555 \$2,200,000 \$5,746,015	South Boston Median Price Highest Total Revenue Total Sales	00 1st Half \$425,000 \$72,000,000 \$79,454,750	00 2nd Half \$415,000 \$1,900,000 \$10,437,256 16	01 1st Half \$330,000 \$5,065,000 \$11,062,500	01 2nd Half \$492,500 \$11,500,000 \$18,966,000 10
Hyde Park Median Price Highest Total Revenue Total Sales	00 1st Half 00 2nd Half \$300,000 \$470,000 \$1,300,000 \$8,160,000 \$3,100,000 \$11,640,000 6 8	01 1st Half \$204,000 \$900,000 \$1,778,740 6	01 2nd Half \$302,500 \$1,500,000 \$2,735,000 6	West Roxbury Median Price Highest Total Revenue Total Sales	00 1st Half \$650,000 \$1,350,000 \$2,953,000 5	00 2nd Half \$840,693 \$1,125,000 \$3,006,386 4	01 1st Half \$900,000 \$2,500,000 \$3,740,000	01 2nd Half \$375,000 \$565,000 2
Jamaica Plain Median Price Highest Total Revenue Total Sales	00 1st Half 00 2nd Half \$795,000 \$525,000 \$4,500,000 \$1,042,373 \$8,080,000 \$2,914,373 6 5	01 1st Half \$700,000 \$5,100,000 \$7,240,000	01 2nd Half \$650,000 \$849,500 2	TOTALS Total Revenue Total Sales	00 1st Half \$129,641,383 104	00 2nd Half \$166,762,445 1 09	01 1st Half \$83,958,774 87	01 2nd Half \$90,976,565 69

Economic Overview

While the nature of economies is cyclical, the severity of recessions historically appears to be moderating. If you buy the argument, then a severe recession is a mistake and learning from past mistakes is key to avoiding them. By the late 90s, we made a concerted effort to forget the lessons learned in the past. Recent events have revealed that Alan Greenspan had it right when he described the bubble economy that peaked last year as 'irrational exuberance'."

Before boom turned to gloom, there was a notion that high-flying technology would never be grounded. The demand could only increase for more powerful computing, faster and innovative communications, and the unlimited potential of the Internet. Business plans illustrated how growth potential was immediate and far-reaching. In order to meet envisioned growth, companies increased their staffs at a frenetic pace. As a result, growth in salaries, bonuses, and security portfolios were deemed indefatigable, bringing unparallel wealth and the accompanying increased demand for goods and services. New office and retail space was created and eagerly scooped up, financial service jobs multiplied, companies with a single concept acquired venture capital support or entertained a variety of suitors from established companies.

In this article, *CTB* looks at the real estate impact of our area's most important industries and their outlook for recovery. The experts cited have been participants in seminars held during the past six months by the Massachusetts Chapter of the National Association of Office and Industrial Property (NAIOP). To monitor topics of future seminars, check out the website at http://www.naiopma.org/

Real Estate Review

Thanks in part to the economic stimulus provided by Greenspan interest rate reductions, the residential real estate market has maintained uncharacteristic and healthy momentum throughout the economic downturn. But, as studied by Wellesley College economist Karl E. Case, recessions typically fail to generate lower prices and affordability. Despite a sea of pessimism and retrenchment around him, the homeowner is prone to denial, believing his house is worth the boom-time price. Thus, pricing is inelastic and the owner would sooner remove his domain from the market than sell at the real market price.

Commercial real estate follows a different pattern. Developers of Class A and B type space, the realm of Central Boston and a few isolated neighborhoods such as South Boston's South Sta-

tion and Allston-Brighton facilities near the MassPike, tossed in their chips with the "new economy" players, building capacity to support unrealistic business plans and blue-sky management. Many of these "new economy" businesses suddenly realized they were in a battle for existence. Unused "growth" space secured to meet the demands of exuberant business plans and to avoid the perceived inevitable rise in lease rates, suddenly was tossed back on the market in acres. Not only did the commercial market have to grapple with a total bottoming out of demand amidst unneeded new construction, sub-lease space flowed back to the market, resulting in negative absorption, a term used to describe an out-of-balance market when additions to supply exceed subtractions from demand. Leasing behavior transformed according to economic fundamentals. Rates exceeding \$100/s.f., bidding wars coupled with bonuses paid to landlords have given way to the new reality. In its 1st Quarter, 2002 "Market Viewpoint", Meredith & Grew, Inc. reports a weighted average Class A lease rate of \$47.65.

The effects from respective downturns or growth periods ripple through the economy, affecting one element later than others. Commercial real estate in Boston's neighborhoods, the focus of *CTB*, has followed this pattern. Transaction volume and sales value in the neighborhoods continued to increase even after the initial shock to the downtown market. However, data in this issue reveals that the recession has caught up to the neighborhoods. Transaction volume is down as is total sales value. An early victim in a recession is speculation, whose loss is not necessarily mourned. With speculation eased, neighborhood commercial transactions that do occur are supporting a higher median price. This may mean that investors are turning to bluechip properties that better hold their value over time. They may also be the only properties for which prospective owners can secure financing.

Technology Turn-Around?

In the new millennium, the good news for technology and our region is that we are no longer harnessed to narrow paths as we were as recently as the late 80s. Back then, our economy died with the mini-computer market. As the Digitals, Data Generals, and Wangs failed, everything around them was shattered. Though now our economy is more diversified, our region still has a heavy dependence upon technology. Fortunately, even our technological base is more diversified. Nevertheless, while biotech and medical technologies have prospered, the significantly larger computer and telecom segments continue to suffer due to sluggish demand.

Olivieri forecasts that the recovery in the high tech hardware areas, such as telecom, will advance real estate demand far more than other industries. He anticipates slow but steady increases in employment in the quarters ahead.

Bio/Pharm Morphing Means More Money

Greg Lucas, Senior Managing Director at Insignia/ESG, observes that the biotech industry has evolved geographically as an East Coast - West Coast phenomena, with Cambridge the clear epicenter of the east. Janice Bourque, President and CEO of the Massachusetts Biotechnology Council notes that a primary reason why 250 of the nation's 1300 biotech companies are located in Massachusetts is because our region continues to provide a fertile environment for the emerging biotech industry due to the level of scientific innovation generated by the critical mass of technology and the proximity to feeder universities, especially MIT. One positive by-product is that the state captures the largest portion of National Institute of Health federal research dollars (15%).

Why is all of this significant? Leon Palandjian, a principal at AGTC Funds, provides a bio/pharm opportunity analysis. He indicates that the health care holds a 15% share (\$1.3 trillion) of the US GDP and that pharmaceuticals account for 10% (\$100 billion) of health care revenues.

Scott Sarazen, a Director at Genzyme Corp, observes that the biotech industry we have grown accustomed to is morphing, with the entry of big pharmaceutical companies who know how to market new products. This is because only now are biotech products passing testing and approval. Many observers believe the recent decision of Swiss pharmaceutical giant Novartis AG to locate in Cambridge is just the tip of the iceberg. The company will lease approximately 400,000 square feet. The very nature of biotech development also is increasing demand for commercial real estate. For every 1,000 biotech ideas in development, 400 reach clinical trials, and 34 result in final products. But, concurrent development requires additional floor space.

By solidifying our leadership role in the biotech industry, Bourque envisions a thriving Massachusetts. Depressed areas of our older cities, especially those with underutilized commercial real estate, can be revitalized from the growing demands of the industry. However, a critical period rapidly approaches if Massachusetts is to secure leadership.

As more products are approved, new demand emerges for manufacturing facilities. Yet, if the technology is transferable, close proximity to HQ and the top scientists may not be required. Therefore, there is no guarantee that manufacturing will occur locally.

Financial Services Still Slow

Speaking for the financial services industry, Stephen Burke, Senior Global Strategist for State Street Global Advisors, recently said that "we deal with realities; therefore, it's hard to be upbeat." Financial services is a mature industry. During the past 15 years, annual employment growth has averaged 1% per year. With Boston having established itself as the number 3 money center in the world, there is a lot of potential downside impact for this industry. Capital market cycles move slowly and the current bear market could linger for years to come. This places tremendous demand for greater productivity. Technology can help, but usually at the expense of jobs and space requirements. As margins and fees shrink in a mature, competitive market, bigger players will prevail due to greater economies of scale.

Burke sees opportunities for tech companies willing to collaborate to achieve greater productivity. Globalization also provides opportunities, especially for foreign interests wishing to participate in the better performing US market. Another opportunity is derived from money management. Boston owns 30% to 35% of this market, with New York City holding a 50% share. Assuming that Boston provides a better quality of life, there is room to gain additional market share.

Reason to Believe

When one steps back from the euphoria/despondency cycle characterizing the past few years, the inevitable conclusion is that business is cyclical and that we are emerging from the trough. David P. Fialkow, Managing Director at General Catalyst Partners, believes there is much greater reason for optimism in Massachusetts than its time and place in the business cycle. Our economy is better diversified. We continue to improve infrastructure, from roads and transportation to communications and government-private partnerships. While dependent on technology, the particular industries served, such as telecom, software, and biotechnology/pharmaceuticals all hold tremendous growth potential, in contrast to the death of the mini-computer market that rolled us into the last recession. We are global leaders in venture capital, where more investments in Massachusetts businesses were made in 1999 and 2000 than in the previous 20 years combined. And as the hub of the Commonwealth, Boston remains a small and manageable city that is extremely attractive to prospective employees.

Prescription for Recovery

To ensure a steady recovery, Fialkow stresses revitalizing the manufacturing base. As our participation intensifies in many growing businesses, companies in the bio/pharm, computer, and communications industries will seek competitive manufacturing.

Losing this to other regions leaves money on the table and risks driving innovative companies out of the region.

Fialkow emphasizes that, while we have a strong foothold in certain industries, we must continue to facilitate their expansion and growth, thereby solidifying market share and creating clusters that force industry players to locate here. We must own the biotech/pharmaceutical market and build on the tremendous base already established. In software, the emerging focus will be on applications that enable companies to run better, harnessing web capabilities. In the not distant future, economists will measure the returns of this area in the billions. Similar software opportunities exist within the health industry. If Boston's exceptional health care industry and computer engineering capability are not married, a great opportunity will be lost. National demand for increased communications security should also be a focus of local companies. Data mining and storage has become incredibly sophisticated, and we are the home of leaders in these enterprises. Innovative communications is another area with global appeal, including instant messaging. Digital photography is poised to command a \$50 billion market.

"We're in the middle of a cycle," concludes Fialkow. Embrace innovation. Recognize that now is exactly the time for building companies.

Positioned for the Next Growth Wave

Michael Hogan, President & CEO of MassDevelopment, agrees that we are still not out of the woods, while encouraging business and economic leaders to build on established strengths. He too noted the added cushion provided by a diverse economy. Adding his optimism about the state's positioning, he reports that, excluding the Big Dig, Massachusetts' infrastructure investments have topped \$10 billion during the past decade, making us ready for the next wave of growth. Also encouraging, Massachusetts has received for the past five years the second most venture capital per capita.

"Economic growth is returning, but at a slower pace," predicts Hogan. He sees annual growth rates over the next five years averaging 2% to 2.5%. At the same time, small businesses, the true economic engines, continue to increase their workforces.

Nearly every regional economic analyst cites the critical importance of Massachusetts' 130 colleges and universities. Hogan credits the innovations and high-level workers emanating from the educational system with forcing west coast giants such as Intel, Sun, and Cisco to set up shop in our region. Fialkow emphasizes partnering with universities, helping bring "the Ivory tower to commercial power." He envisions universities as innovators

of both new products and enhanced systems that will enable ventures to accelerate the innovation to commercialization process. More should be done, notes Fialkow, to help educational institutes expedite and benefit from licensing and encouraging professors to become more entrepreneurial.

The rapidly changing defense industry remains a key element of the local economy. In FY 2001, the Dept. of Defense will invest nationwide \$41 billion on R&D, one of our area's great strengths. By next year, this expenditure increases to \$54 billion. Additional, acquisition funding is \$62 and \$69 billion in FY 01 and FY 02 respectively. A large chunk of this budget will be spent buying Cruise Missiles, which are locally made.

Ignore the "Creative Economy" at Great Peril

Beth Siegel with Mount Auburn Associates urges support of the Arts, Culture, and Creative Industries, points out that the Cultural/Tourism category is the 5th largest industry in the state. Plus, thousands of Massachusetts residents are employed in creative endeavors. An emerging vision for "the Creative Economy" is far more wide reaching than non-profit organizations and tourist attractions. She encourages better synergy between non-profit art organizations, commercial art organizations, and general commerce, tying together theaters and museums with practitioners of architecture, graphic design, and media. Much like the technological counterparts, Siegel urges increased university spin-offs, blending culture with economic activity. For the real estate professional convinced that art and culture improve the quality of life and the economy, she notes that artists are desperate for both work and living space. Raising the warning flag, surrounding towns are actively recruiting dislocated Boston artists.

Floorspace Forecasts

Experts cited here have been asked to envision how our key industries' real estate needs will change. Burke, representing the financial service industry, predicts that some administrative functions may migrate away from the central city, but the financial services industry, catering to a global market, needs to remain located downtown. Sarazen for bio/pharm reemphasizes that current R&D space requirements are totally different than emerging manufacturing requirements. Designers of manufacturing facilities will want open space; managers will want qualified workers. The cost of open space and the yet to be defined skill level of workers will dictate where the future bio/pharm manufacturing plants will locate. As Director of Facilities Planning, Sarazen already has begun to consider these issues. Rhetorically, he asked, "If locating in Boston requires you to deal with 75 to 100 different agencies, and a representative from one of the European Union nations tells you not to worry and that he'll take care of everything, who's leading the race?"